Title:

Socioeconomic Status and Post-Arrest Care after Out-of-Hospital Cardiac Arrest

ABSTRACT

Introduction:

Post-arrest care after out-of-hospital cardiac arrest (OHCA) is critical to optimizing outcomes, but little is known about socioeconomic disparities in post-arrest care. We evaluated the association of socioeconomic status (SES) with post-arrest care and outcomes.

Methods:

We included adult OHCAs surviving to hospital admission from the 2014-2020 Texas Cardiac Arrest Registry to Enhance Survival (CARES) and stratified cases into SES quartiles based on census tract data. Outcomes were targeted temperature management (TTM), percutaneous coronary intervention (PCI), survival to discharge, and survival with a Cerebral Performance Category (CPC) 1-2. We applied both a multivariable logistic regression and a mixed effects logistic regression, comparing lower quartiles to top quartile for outcomes. We modeled receiving hospital as a random intercept.

Results:

We included 9,936 OHCAs. Using multivariable logistic regression and ignoring the receiving hospital, lower income had lower TTM (Q3 aOR 0.6, 95% CI 0.5-0.7; Q4 aOR 0.5, 95% CI 0.5-0.6), lower PCI (Q4 aOR 0.6, 95% CI 0.4-0.8), and lower survival with good CPC. Lower education had lower TTM (Q2 aOR 0.7, 95% CI 0.7-0.8; Q3 aOR, 0.6 95% CI 0.5-0.7; Q4 aOR 0.6, 95% CI 0.5-0.7), lower survival, and lower survival with good CPC. Lower employment had lower TTM (Q3 aOR 0.7, 95% CI 0.6-0.9; Q4 aOR 0.7, 95% CI 0.6-0.9) and survival with good CPC. Relationships for post-arrest care were not significant on mixed model analyses though.

Conclusion:

Lower SES was linked to lower rates of post-arrest care and outcomes, but many of the associations diminished when adjusting for receiving hospital random effect. Further study is needed to evaluate for inter-hospital disparities in care.

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